

beneficiary will be notified and afforded the opportunity, in accordance with the provisions of § 79.72(c), to submit additional records to establish that the statutory criteria are satisfied.

§ 79.44 Proof of working level month exposure to radiation.

(a) If one or more of the sources in § 79.43(a) contain a calculated total of working level months (WLMs) of radiation for the claimant equal to or greater than 40 WLMs, then the Program will presume that total to be correct, absent evidence to the contrary, in which case the claimant or eligible surviving beneficiary need not submit additional records.

(b) If the sources in § 79.43(a) do not contain a calculated total of WLMs of radiation for the claimant, or contain a calculated total that is less than 40 WLMs, a claimant or eligible surviving beneficiary may submit the following records reflecting a calculated number of WLMs of radiation for periods of employment established under § 79.43(c):

(1) Certified copies of records of regulatory agencies of the specified states, provided that the records indicate the mines at which the claimant was employed, the time period of the claimant's employment in each mine, the exposure level in each mine during the claimant's employment, and the calculations on which the claimant's WLMs are based, unless the calculation is apparent;

(2) Certified copies of records of the owner or operator of a uranium mine in the specified states, provided that the records indicate the mines at which the claimant was employed, the time period of the claimant's employment in each mine, the exposure level in each mine during the claimant's employment, and the calculations on which the claimant's WLMs are based, unless the calculation is apparent.

(c) If the number of WLMs established under paragraphs (a) and (b) of this section is equal to or greater than 40 WLMs of radiation, the claimant or eligible surviving beneficiary need not submit additional records. When the sources referred to in paragraphs (a) and (b) of this section do not establish a calculated number of at least 40 WLMs, the Program will, where pos-

sible, calculate additional WLMs in the manner set forth in paragraphs (d) through (g) of this section for the periods of employment for which the sources in paragraphs (a) and (b) do not establish calculated totals. When calculating an exposure level for a particular period of a claimant's employment history, the Program will apply aboveground exposure levels with respect to those periods in which the claimant worked principally aboveground and will apply underground exposure levels with respect to those periods in which the claimant worked principally underground.

(d) To the extent the sources referenced in paragraphs (a) and (b) of this section do not contain a calculated number of WLMs, but do contain annual exposure levels measured in Working Levels (WLs) for mines in which the claimant was employed, the Program will calculate the claimant's exposure to radiation measured in WLMs in the manner set forth in paragraph (h) of this section.

(e) For periods of employment in a uranium mine that a claimant establishes under § 79.43(c) as to which paragraph (d) of this section is not applicable, the Program will, where possible, use any or all of the following sources in computing the annual exposure level measured in WLs in each mine for the period of the claimant's employment, in the manner set forth in paragraph (g) of this section:

(1) Records of the AEC, or its successor agencies;

(2) Records of the PHS, including radiation-level measurements taken in the course of health studies conducted of uranium miners during or including the period 1942-1971;

(3) Records of the United States Bureau of Mines;

(4) Records of regulatory agencies of the specified states; or

(5) Records of the business entity that was the owner or operator of the mine.

(f) For periods of employment in unidentified or misidentified uranium mines that a claimant establishes under § 79.43(c) through (f), the Program will determine annual exposure

levels measured in WLs in the unidentified or misidentified mines by calculating an average of the annual exposure levels measured in WLs in all the uranium mines owned or operated by the entities for which the claimant worked during the appropriate time periods and in the identified states.

(g) With respect to periods of employment in a uranium mine that a claimant establishes under § 79.43(c) as to which paragraph (d) of this section is not applicable, and periods of employment in unidentified or misidentified uranium mines that a claimant establishes under § 79.43(c) through (f), the Program will use the following methodology to calculate the annual exposure level measured in WLs for each mine:

(1) If one or more radiation measurements are available for a mine in a given year, such values will be averaged to generate the WLs for the mine for that year.

(2) If radiation measurements exist for the mine, but not for the year in which the claimant was employed in the mine, the WLs for the mine for that year will be estimated if possible as follows:

(i) If annual average measurements exist within four years of the year in which the claimant was employed in the mine, the measurements for the two closest years will be averaged, and that value will be assigned to the year the claimant was employed in the mine;

(ii) If one or more annual average measurements exist for a mine, but are not more than five years from the year the claimant was employed, the annual average closest in time will be assigned either forward or backward in time for two years.

(3) If the methods described in paragraph (g)(2) of this section interpolate or project the annual exposure level measured in WLs for a mine in a year in which the claimant was employed in the mine, the Program will use an estimated average for mines of the same or similar type, ventilation, and ore composition in the same geographical area for that year. An estimated area average will be calculated as follows:

(i) If actual measurements from three or more mines of the same or

similar type, ventilation, and ore composition are available from mines in the same locality as the mine in which the claimant was employed, the average of the measurements for the mines within that locality will be used.

(ii) If there are insufficient actual measurements from mines in the same locality to use the method in paragraph (g)(3)(i) of this section, an average of exposure levels in mines in the same mining district will be used.

(iii) If there is no average of exposure levels from mines in the same mining district, the average of exposure levels in mines in the same state will be used.

(iv) If there are insufficient actual measurements from mines in the same state, the estimated average for the State of Colorado for the relevant year will be used.

(4) With respect to a year between 1942 and 1949, if the claimant was employed in a mine for which no exposure levels are available for that year, then the Program will estimate the annual exposure levels measured in WLs by averaging the two earliest exposure levels recorded from that mine after the year 1941. If there are not two exposure levels recorded from that mine, the Program will estimate the WLs by averaging the two earliest exposure levels after the year 1941 from the mines identified according to the methods set forth in paragraphs (g)(3)(i) through (iv).

(h) The Program will calculate a claimant's total exposure to radiation expressed in WLMs, for purposes of establishing eligibility under § 79.42(c), by adding together the WLMs for each period of employment that the claimant has established. For those periods of a claimant's employment for which the Program has obtained or calculated WLs pursuant to paragraphs (d) through (g) of this section, the Program shall determine WLMs by multiplying the WL by the pertinent time period, measured in months, yielding a claimant's exposure to radiation expressed in WLMs.

(i) In addition to any other material that may be used to substantiate employment history for purposes of determining WLMs, an individual filing a claim may make such a substantiation

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by means of an affidavit described in § 79.4(c)(4).

§ 79.45 Proof of primary lung cancer.

(a) In determining whether a claimant developed primary lung cancer following pertinent employment as a miner, the Assistant Director shall resolve all reasonable doubt in favor of the claimant. A conclusion that a claimant developed primary lung cancer must be supported by medical documentation. To prove that a claimant developed primary lung cancer, the claimant or beneficiary may submit any form of medical documentation specified in paragraph (e) of this section. In all cases, the Program will review submitted medical documentation, and will, in addition and where appropriate, review any pertinent records discovered within the sources identified in paragraphs (b), (c), and (d) of this section.

(b) Where appropriate, the Radiation Exposure Compensation Program will search the records of the PHS (including NIOSH), created or gathered during the course of any health study of uranium workers conducted or being conducted by these agencies, to determine whether those records contain proof of the claimant's medical condition. (In cases where the claimant is deceased, the Program will accept as proof of medical condition the verification of the PHS or NIOSH that it possesses medical records or abstracts of medical records of the claimant that contain a verified diagnosis of primary lung cancer.)

(c) If a claimant was diagnosed as having primary lung cancer in Arizona, Colorado, Nevada, New Mexico, Utah, or Wyoming, and the claimant or eligible surviving beneficiary submits with the claim an Authorization To Release Medical or Other Information, valid in the state of diagnosis, that authorizes the Radiation Exposure Compensation Program to contact the appropriate state cancer or tumor registry, the Program will, where appropriate, request the relevant information from that registry and will review records that it obtains from the registry. (In cases where the claimant is deceased, the Program will accept as proof of medical condition verification from the

state cancer or tumor registry that it possesses medical records or abstracts of medical records of the claimant that contain a verified diagnosis of primary lung cancer.)

(d) If medical records regarding the claimant were gathered during the course of any federally supported, health-related study of uranium workers, and the claimant or eligible surviving beneficiary submits with the claim an Authorization To Release Medical or Other Information that authorizes the Program to contact the custodian of the records of the study to determine if proof of the claimant's medical condition is contained in the records of the study, the Program will, where appropriate, request such records from that custodian and will review records that it obtains from the custodian. (In cases where the claimant is deceased, the Program will accept as proof of the claimant's medical condition such medical records or abstracts of medical records containing a verified diagnosis of primary lung cancer.)

(e)(1) A claimant or beneficiary may submit any of the following forms of medical documentation in support of a claim that the claimant contracted primary lung cancer. Such documentation will be most useful where it contains an explicit statement of diagnosis or such other information or data from which the appropriate authorities at the National Cancer Institute can make a diagnosis to a reasonable degree of medical certainty:

(i) Pathology report of tissue biopsy, including, but not limited to, specimens obtained by any of the following methods:

- (A) Surgical resection;
- (B) Endoscopic endobronchial or transbronchial biopsy;
- (C) Bronchial brushings and washings;
- (D) Pleural fluid cytology;
- (E) Fine needle aspirate;
- (F) Pleural biopsy; or
- (G) Sputum cytology;
- (ii) Autopsy report;
- (iii) Bronchoscopy report;
- (iv) One of the following summary medical reports:

(A) Physician summary report;